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Catalog # 46-0354 Methanesulfonato[2-diphenylphosphino-2',6'-bis(dimethylamino)-1,1-biphenyl](2'-amino-1,1'-biphenyl-2-yl)palladium(II), [PhCPhos Palladacycle Gen. 3]

Technical Notes:

- 1. Synthesis of aryl sulfonamides via palladium-catalyzed chlorosulfonylation of arylboronic acids.
- 2. Rational ligand design for the arylation of hindered primary amines guided by reaction progress kinetic analysis.

$$Ar - X + H_2N R' R'' R'' - \frac{Pd\text{-complex } (0.5\text{-}2\%)}{NaO(tBu)} Ar N R' R'' R'' Ref. (2)$$

$$80^{\circ}\text{-}120^{\circ}\text{C}$$

$$1,4\text{-dioxane}$$

References:

- 1. J. Am. Chem. Soc., 2013, 135, 10638.
- 2. J. Am. Chem. Soc., 2015, 137, 3085.